

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

35. (CURRENTLY AMENDED) A method for producing a corn plant comprising the steps of:

- (a) co-cultivating an immature embryo from said tissue at a temperature of about 15°C about 16°C to about 21°C with *Agrobacterium* capable of transferring at least one genetic element gene to said tissue to produce an infected embryo;
- (b) culturing the infected embryo on a medium comprising an antibiotic to produce a resulting tissue;
- (c) culturing said resulting tissue on a medium comprising a selective agent;
- (d) selecting transformed tissue having Type II callus; and
- (e) regenerating transgenic plants from said Type II callus.

36. (PREVIOUSLY PRESENTED) The method of claim 35, wherein said temperature is about 19°C.

37. (PREVIOUSLY PRESENTED) A method for producing a transformed corn plant comprising the steps of:

- (a) co-cultivating an immature embryo from said tissue with *Agrobacterium* capable of transferring at least one genetic factor to said tissue to produce an infected embryo, wherein said *Agrobacterium* is taken from *Agrobacterium* stock about 0.5 to about 5 days after rescue from frozen glycerol stocks;
- (b) culturing the infected embryo to initiate callus on a medium comprising an antibiotic;
- (c) culturing the resulting callus tissue on a medium comprising a selective agent;
- (d) selecting transformed callus tissue having Type II callus; and
- (e) regenerating transgenic plants from said Type II callus.

38. (CURRENTLY AMENDED) A method for transforming a line of corn comprising

the steps of:

- (a) co-cultivating an immature embryo from said line with *Agrobacterium* capable of transferring at least one gene to tissue of said line to produce an infected embryo;
- (b) culturing the infected embryo to initiate callus on a medium comprising an antibiotic and a ~~monosaccharide-sugar~~ compound selected from the group consisting of glucose, maltose, lactose, sorbitol and mannitol;
- (c) culturing the resulting callus tissue on a medium comprising a selective agent;
- (d) selecting transformed callus tissue comprising growing Type II callus; and
- (e) regenerating transgenic plants from said growing Type II callus.

39-40. (CANCELED)

41. (CURRENTLY AMENDED) The method of claim 38, wherein the concentration of said ~~monosaccharide-sugar~~ compound is from 5 g/L to 30 g/L.

42. (CURRENTLY AMENDED) A method for producing a transformed corn plant using *Agrobacterium* comprising the steps of:

- (a) initiating co-cultivation of an immature embryo from said tissue with *Agrobacterium* capable of transferring at least one ~~genetic-factor~~ gene to said tissue to produce an infected embryo;
- (b) applying heat shock treatment during said co-cultivation;
- (c) culturing the infected embryo to initiate callus on a medium comprising an antibiotic and glucose;
- (d) culturing the resulting callus tissue on a medium comprising a selective agent;
- (e) selecting transformed callus tissue having Type II callus; and
- (f) regenerating transgenic plants from said Type II callus.

43. (PREVIOUSLY PRESENTED) A method for transforming a line of corn using *Agrobacterium* comprising the steps of:

- (a) co-cultivating an immature embryo from said line with *Agrobacterium* capable of transferring at least one gene to tissue of said line to produce an infected embryo;
 - (b) culturing the infected embryo to initiate callus on a medium comprising an antibiotic;
 - (c) culturing the resulting callus tissue on a medium comprising a selective agent or a combination of antibiotic and selective agent;
 - (d) selecting transformed callus tissue comprising growing Type II callus; and
 - (e) regenerating transgenic plants from said Type II callus,
- wherein exposure to said antibiotic is increased over two or more passages on the medium of at least one of step (b) or step (c).